41: Bates & Abbott N-5 (1953) 1958
OR21 Woleai OR21
Ifaluk

tempt at understanding man's relations with the world around him. With the census finished and the mapping well started, food study had next priority.

Each of us had somewhat different ideas about how to approach this difficult job. In the end, records were kept on four different households for a month each. Two of the studies were made by Ted and two by Don. I am not sure, looking back, why I stayed out of this, because food relations have long been one of my pet interests. I think it was chiefly a matter of economy of effort. Ted and Don had the matter well in hand and each had special advantages: Ted because of his familiarity with local customs and with the language, and Don because of his close association with the invaluable Yani. The daily record taking rapidly became routine, and a pattern formed very early by which each of us established his own special daily routines, thereby avoiding duplication of effort. When to collaborate and when to specialize is a nice problem in the team approach to scientific study. I think we handled the division of labor very well, though not always consciously.

Don and Ted have summarized the results of this food study. The details will be published in scientific papers, but perhaps I can give here a general summary.

The four households included a total of forty people, men, women and children: the average weight per person being 95 lbs. The average daily intake of staple food per person per day was: fresh breadfruit, 175 grams; ripe coconut meat, 130 grams; fish, 105 grams; taro, 70 grams; fermented breadfruit, 60 grams; fresh toddy (sap from coconut flower stalks), 415 cc.; milk from green coconuts, 75 cc.; green coconut meat, perhaps 35 grams.

Calculating food values for these materials is not easy, since most detailed nutritional studies have been made with northern foods. The foods of the tropical Pacific, however, have been studied in Hawaii, and there is a growing literature on nutrition in other parts of the Pacific. From this information, it appears that Ifaluk diet is inadequate in several respects, according to the usual dietary norms. The Ifalukians, however, gave every appearance of having an adequate diet—there were no obvious signs of their being undernourished. I have long

41: Bates & Abbott N-5 (1953) 1958
OR21 Woleai OR21
Ifaluk

come to view with suspicion these tables giving comparative nutritional values for different parts of the world. Truly, much of the world suffers from malnutrition as compared with the United States or Western Europe; but also, I think, our nutritionists have failed to give adequate attention to possibly varying needs. The food needs of man in Ifaluk and of man in New York are not necessarily the same.

One problem with diet studies is the difficulty of keeping track of snacks, of occasional foods; yet such occasional or incidental food may be very important in relation to some vitamin or mineral requirement. We were very conscious of this problem, and Ted and Don made every effort to keep track of incidental food as well as of staples. Yani was particularly helpful in this, because he tried to remember and report all of the incidental things that he and his friends ate as they wandered about during the day. On this basis, there was considerable variety in the Ifalukian food. At least thirty kinds of plants were eaten in one way or another (not counting "medicines"). Don got records of eighty-eight different kinds of fish that were eaten, and guesses that there must be many more. For animals, there were also sea turtles, chickens and other birds, and occasionally pigs and dogs. Some seventeen kinds of molluscs were eaten, eight kinds of crustaceans, and a few other things like sea anemones and one kind of sea urchin.

We arrived at the height of the breadfruit season. Breadfruit trees grew everywhere, producing far more fruit than could be used; and the fallen, rotting fruits were probably the chief breeding places of the flies that so plagued us. As the breadfruit harvest dropped later in the summer, so did the numbers of flies.

Breadfruit in its season (June through September, with a second, smaller crop in February and March) is the staple food, the chief source of starch, for the people of Ifaluk. It is a staple on most of the islands of the tropical Pacific—the "bread" of Polynesia and Micronesia.

The big, starchy fruits grow on a handsome tree, probably native to Malaya. It may well be among the most anciently cultivated of plants and the main food varieties are seedless, completely dependent on man for reproduction. It is propagated from shoots which spring up around the base of the trunk, and the colonizers of the Pacific—

41: Bates & Abbott N-5 (1953) 1958
OR21 Woleai OR21
Ifaluk

I, of course, made the proper jeers about this culture-bound food aversion of his, which would cut him off from a rich local source of protein. Out of sheer bravado one morning I sucked turtle egg after turtle egg. I got nowhere in my effort to make Don feel foolish (he had great reserves of faith in his own prejudices) but I did make myself very sick. I suspect that the relation between the cramps and the turtle eggs was sheer coincidence; but for the rest of the summer I couldn't face a turtle egg with any more equanimity than Don could, and the eggs that were brought us were disposed of surreptitiously.

The Ifalukians were always bringing us food, more food than we could possibly have eaten with the best will in the world. We protested, but there was no stopping them. Much of it we didn't like—we were a very culture-bound trio, really, perfectly happy with our spam and canned spinach. We felt we couldn't run the risk of hurting the feelings of our hosts by admitting that we didn't much like their breadfruit and boiled pulax, so we would accept the food, eat what we could, and stealthily dispose of the rest in the lagoon at night.

We were always really grateful for gifts of fish, however, and my memories of the summer include the tastiest fish orgies of my whole life. We would turn the fish over to Bakal for fileting and Ted was really a master at rolling the filets in corn meal and frying them in bacon grease as I remarked before, and the Ifalukian fish, fresh out of the transparent waters of the lagoon, were just the right material with which to work.

But while we kept our respect for Ted and the Western method of frying things, we also fell in easily with the Ifalukian method of cooking fish. The commonest and perhaps the tastiest method was simply to roast the fish whole in coals of burned coconut husks. The hardened and carbonized skin could be easily peeled off, to reveal the tasty flesh. I have particularly fond memories of roasted parrot fish. Somewhere, from my Florida childhood, I had got the idea that parrot fish were inedible. I still don't know about the West Indian varieties, but I can certify that the parrot fish of Ifaluk were very edible indeed.

Don and I lost weight during the summer though hardly needing to. I had a gaunt and hungry look, twenty pounds below my normal weight, when I left after three months. I suspect this was our own fault, due to our careless habits of living off casually opened tins of

41: Bates & Abbott N-5 (1953) 1958
OR21 Woleai OR21
Ifaluk

000 this or that. We might have done better if we had tried to adapt directly to the Ifalukian diet, because certainly the Ifalukians looked [146] healthy and husky enough. Perhaps we couldn't have adapted to their varieties of starch in the time available, since changing food habits involves somewhat more than merely changing prejudices, and changing prejudices is not always easy, particularly when there are three people to interact on one another.

114 Clearly our own food behavior was not adapted to the atoll conditions, though I am not sure exactly what we did wrong. I always tend to have a skinny, underfed look, in the tropics. It bothers me to have people tell me how well I look after a winter in the north, and how bad I look after a period of tropical residence, because my feelings are exactly the opposite of my appearance. We weighed ourselves periodically on the bathroom scales that we had brought along for weighing the inhabitants of Ifaluk, and I worried a little as I watched the steady drop. But the worry wasn't enough to spoil the pleasure of living in the sun or lazily floating in the lagoon, or enough to jar me into any dietary experiments. We went on opening our cans while we weighed the food at Falepenach and Soumat, dietary intruders but having a wonderful time.